

### ABSTRACT OF THE DISCLOSURE

A process for optically transmitting data to a remote receiver includes receiving a stream of input data signals and modulating a mid-IR laser by direct modulation with a waveform whose sequential values are responsive of the data signals of the stream. The direct modulation includes pumping the mid-IR laser to produce high and low optical power levels in response to different ones of the values. The process also includes transmitting output light from the modulated mid-IR laser to the remote receiver via a free space communications channel.

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